

Amendments to the Specification

Please replace the table on page 1 with the following amended table:

| Docket # | Serial # | Title |
|-----------|------------------|---|
| CNTR:2024 | <u>09/898832</u> | APPARATUS AND METHOD FOR SELECTIVELY ACCESSING DISPARATE INSTRUCTION BUFFER STAGES BASED ON BRANCH TARGET ADDRESS CACHE HIT AND INSTRUCTION STAGE WRAP |
| CNTR:2051 | <u>09/906381</u> | APPARATUS AND METHOD FOR HANDLING BTAC BRANCHES THAT WRAP ACROSS INSTRUCTION CACHE LINES |

Please replace paragraph [0030] on page 15 with the following amended paragraph:

In one embodiment, the instruction cache 102 comprises a 64KB 4-way set associative cache, with 32-byte cache lines per way. In one embodiment, one half of the selected cache line of instruction bytes is provided by the instruction cache 102 at a time, i.e., 16 bytes are provided during two separate periods each. In one embodiment, the instruction cache 102 is similar to an instruction cache described in U.S. Patent application serial number 09/849736 entitled SPECULATIVE BRANCH TARGET ADDRESS CACHE, (docket number CNTR:2021), having a common assignee, and which is hereby incorporated by reference in its entirety for all purposes.

Please replace paragraph [0037] on pages 18 and 19 with the following amended paragraph:

The mux 118 also receives a resolved target address 164. The resolved target address 164 is provided by execution logic in the microprocessor 100. The execution logic calculates the resolved target address 164 based on a full decode of a branch instruction. If after branching to the target address 132 provided by the BTAC 116, the microprocessor 100 later determines that the branch was erroneous, the microprocessor 100 corrects the error by flushing the pipeline and branching to either the resolved target address 164 or to the fetch address of a cache line including the instruction following the branch instruction. In one embodiment, the microprocessor 100 corrects the error by flushing the pipeline and branching to the fetch address of a cache line including the branch instruction itself, if the microprocessor 100 determines that no branch instruction was present in the cache line 142 as presumed. The error correction is as described in

U.S. Patent application serial number 09/849658 entitled APPARATUS, SYSTEM AND METHOD FOR DETECTING AND CORRECTING ERRONEOUS SPECULATIVE BRANCH TARGET ADDRESS CACHE BRANCHES, (docket number CNTR:2022), having a common assignee, and which is hereby incorporated by reference in its entirety for all purposes.

Please replace paragraph [0038] on pages 19 and 20 with the following amended paragraph:

In one embodiment, the mux 118 also receives other target addresses predicted by other branch prediction elements, such as a call/return stack and a branch target buffer (BTB) that caches target addresses of indirect branch instructions based on the branch instruction pointer. The mux 118 selectively overrides the target address 132 provided by the BTAC 116 with the target address provided by the call/return stack or BTB as described in U.S. Patent application serial number 09/849799 entitled SPECULATIVE BRANCH TARGET ADDRESS CACHE WITH SELECTIVE OVERRIDE BY SECONDARY PREDICTOR BASED ON BRANCH INSTRUCTION TYPE, (docket number CNTR:2052), having a common assignee, and which is hereby incorporated by reference in its entirety for all purposes.